

# A Problem of Scale

by Gordon Tully

Every design poses a unique challenge, and the designer's first task is to snoop it out. In a recent project that required adding on to an attractive dormered cape, I was posed a challenge regarding scale, specifically: How do you successfully add onto a handsome, well-proportioned house that is about 15% smaller than it appears to be?

## The Problem

The 28-foot-square main house has a 7-on-12 roof springing from about a foot off the second floor, with the gable end prominently displayed on the east side as you approach the house (see sketch, below). A one-story back ell

measures about 21 feet by 30 feet. Expanding and remodeling the ell in a way that harmonized with the main house was the task posed. The owners wanted an entry, kitchen, dining area, and family area on the ell's first floor, and a master suite and study fit into what would be a second floor over the ell. In the main house, they planned to convert the existing dining room into a guest room. Finally, they wanted a wide porch (yesteryear's "piazza," today's "farmer's porch") at the back entry.

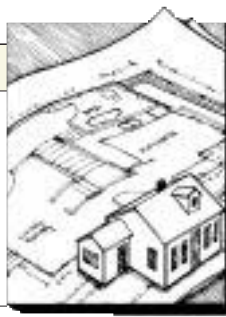
## Trying Some Things On

Simply adding a full second story over the ell didn't work, because even

when cut down in scale by the porch roof, the full second-floor sidewall was too high.

My next idea was to build a partial second floor at the end of the ell, with a one-room-wide gable parallel to that of the main house. This almost worked, but the lower roof linking the two gables left too little room upstairs for our plan objectives. Also, because the two gables were so close, the new tail (the tall cross-gable) seemed to wag the old dog.

We came up with the two best solutions by insisting on a cross-section that would provide full standing head-room 30 inches in from the outside wall. In the first version, a 12-on-12 roof rests on a 4-foot-high second floor wall; in the second version, a gambrel roof springs from the second floor. Both approaches include two small dormers rather than a single long shed. The small dormers cost more and give less space, but are crucial in reducing the ell's visual height.



Existing House



Ell with Cross-Gable



Gable Solution

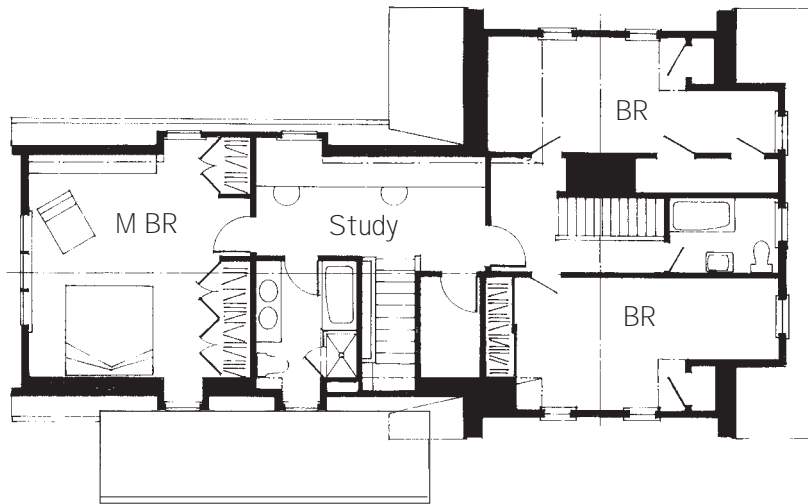


Gambrel Solution



In this remodeling job, the modest roof pitch and height of the main house (top left) created difficult scaling problems in what at first seemed a fairly simple assignment — adding a master bedroom suite above the ell. The author's first solution, an ell with a cross-gable (top right), provided the desired room, but threatened to overwhelm the original building. A better solution was to create a simpler, lower mass over the ell, with the roof broken up by two dormers to make it less imposing. Either a gable (bottom left) or a gambrel (bottom right) works; in both cases, an added porch further pulls the addition into scale with the main house.

## Floor Plan



*It proved impossible to fit a separate enclosed study into the plan, but leaving the front stairs intact keeps general traffic away from the master suite, providing the desired privacy.*

In either solution, the porch provided one of the keys to resolving the scale problem. It extended the line of the main house roof, thereby adding visual weight to the low main house form; and it kept the apparent height of the ell from overwhelming the “big house.”

Which solution one settles on is pretty much a matter of preference. To my eye the gambrel most successfully solves the house’s scale problems, but the gable is more compatible with the style of the main house. The clients went for the gable.

## Fitting It All In (Almost)

Because the two solutions provide functionally similar cross-sections, they both allow for several possible plans. Unfortunately, none of these created enough room for the second-floor study to be separately enclosed (see sketch, left). However, leaving the front stair intact (I had originally proposed removing it to open up the main house) prevents the circulation to the other upstairs rooms from intruding on the study alcove, leaving it private; so in the end we got most of what we wanted with an addition that fits with the existing house.

## The Wheel Already Exists

Like all amateur preachers, I have only a few sermons. One is that styles are not clothes you drape over a design to suit a passing fad. Style elements, such the gambrel roof on this design, are tools already worked out by clever designers in the past, and are available to solve today’s design problems. ■

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